



DAFTAR PUSTAKA

- Bao, X. dan Zhou, Y., 2010, Synthesis and recognition properties of a class of simple colorimetric anion chemosensors containing OH and CONH groups, *Sensors Actuators, B Chem.*, 147, 434–441.
- Beer, P.D. dan Gale, P.A., 2001, Anion Recognition and Sensing: The State of the Art and Future Perspectives, *Angew. Chem. Int. Ed.*, 40, 486–516.
- Bregović, V.B., Basarić, N., dan Mlinarić-Majerski, K., 2015, Anion binding with urea and thiourea derivatives, *Coord. Chem. Rev.*, 295, 80–124.
- Bühlmann, P., Nishizawa, S., Xiao, K.P., dan Umezawa, Y., 1997, Strong hydrogen bond-mediated complexation of $H_2PO_4^-$ by neutral bis-thiourea hosts, *Tetrahedron*, 53, 1647–1654.
- Chen, R.F., Liu, T., Rong, H.W., Zhong, H.T., dan Wei, C.H., 2021, Effect of organic substances on nutrients recovery by struvite electrochemical precipitation from synthetic anaerobically treated swine wastewater, *Membranes (Basel)*, 11, 594.
- Chen, W., Liang, H., Wen, X., Li, Z., Xiong, H., Tian, Q., Yan, M., Tan, Y., dan Royal, G., 2022, Synchronous colorimetric determination of CN^- , F^- , and $H_2PO_4^-$ based on structural manipulation of hydrazone sensors, *Inorganica Chim. Acta*, 532, 120760.
- Costa, G.B., Fernandes, D.D.S., Almeida, V.E., Araújo, T.S.P., Melo, J.P., Diniz, P.H.G.D., dan Véras, G., 2015, Digital image-based classification of biodiesel, *Talanta*, 139, 50–55.
- Dasari, H. dan Bhagavathi, C., 2005, Distance Measures in RGB and HSV Color Spaces,. In, *International Conference on Computers and Their Applications*.
- Dhivya, R., Kavitha, V., Viswanathamurthi, P., Haribabu, J., dan Echeverria, C., 2022, A Reversible Fluorescent Chemosensor for the Selective Detection of Cu^{2+} and Cn^- Ions by Displacement Approach, *SSRN Electron. J.*
- Emami Khansari, M., Wallace, K.D., dan Hossain, M.A., 2014, Synthesis and anion recognition studies of a dipodal thiourea-based sensor for anions, *Tetrahedron Lett.*, 55, 438–440.
- Fan, Y., Li, J., Guo, Y., Xie, L., dan Zhang, G., 2021, Digital image colorimetry on smartphone for chemical analysis : A review, *Measurement*, 171, 108829.
- Firdaus, M.L., Alwi, W., Trinoveldi, F., Rahayu, I., Rahmidar, L., dan Warsito, K., 2014, Determination of Chromium and Iron Using Digital Image-based Colorimetry, *Procedia Environ. Sci.*, 20, 298–304.
- Ghosh, K., Tarafdar, D., Samadder, A., dan Khuda-Bukhsh, A.R., 2015, Pyridinium-based flexible tripodal cleft:A case of fluorescence sensing of

ATP and dihydrogenphosphate under different conditions and cell imaging, *RSC Adv.*, 5, 35175–35180.

- Greenawald, L.A., Boss, G.R., Snyder, J.L., Reeder, A., dan Bell, S., 2017, Development of an Inexpensive RGB Color Sensor for the Detection of Hydrogen Cyanide Gas, *ACS Sensors*, 2, 1458–1466.
- Huang, W., Li, Y., Lin, Huakuan, dan Lin, Hai, 2012, Colorimetric recognition of acetate anions in aqueous solution using charge neutral azo derivatives, *Spectrochim. Acta - Part A Mol. Biomol. Spectrosc.*, 86, 437–442.
- Kanchi, S., Sabela, M.I., Mdluli, P.S., Inamuddin, dan Bisetty, K., 2018, Smartphone based bioanalytical and diagnosis applications: A review, *Biosens. Bioelectron.*, 102, 136–149.
- Katayev, E.A., Ustyynyuk, Y.A., dan Sessler, J.L., 2006, Receptors for tetrahedral oxyanions, *Coord. Chem. Rev.*, 250, 3004–3037.
- Kaur, K., Saini, R., Kumar, A., Luxami, V., Kaur, N., Singh, P., dan Kumar, S., 2012, Chemodosimeters: An approach for detection and estimation of biologically and medically relevant metal ions, anions and thiols, *Coord. Chem. Rev.*, 256, 1992–2028.
- Kim, D.S., Chung, Y.M., Jun, M., dan Ahn, K.H., 2009, Selective colorimetric sensing of anions in aqueous media through reversible covalent bonding, *J. Org. Chem.*, 74, 4849–4854.
- Kondo, S.I. dan Takai, R., 2013, Selective detection of dihydrogen phosphate anion by fluorescence change with tetraamide-based receptors bearing isoquinolyl and quinolyl moieties, *Org. Lett.*, 15, 538–541.
- Leng, Y.L., Zhang, J.H., Li, Q., Zhang, Y.M., Lin, Q., Yao, H., dan Wei, T.B., 2016, A highly sensitive colorimetric chemodosimeter for cyanide anion by Michael addition based on a coumarin derivative, *New J. Chem.*, 40, 8607–8613.
- Li, Z., Liu, G., Fan, C., dan Pu, S., 2021, Ratiometric fluorescence for sensitive detection of phosphate species based on mixed lanthanide metal organic framework, *Anal. Bioanal. Chem.*, 413, 3281–3290.
- Lu, H., Xu, W., Zhang, D., dan Zhu, D., 2005, Highly effective phosphate electrochemical sensor based on tetrathiafulvalene, *Chem. Commun.*, 4777–4779.
- Martínez-Máñez, R. dan Sancenón, F., 2003, Fluorogenic and chromogenic chemosensors and reagents for anions, *Chem. Rev.*, 103, 4419–4476.
- Moon, K.S., Singh, N., Lee, G.W., dan Jang, D.O., 2007, Colorimetric anion chemosensor based on 2-aminobenzimidazole: naked-eye detection of biologically important anions, *Tetrahedron*, 63, 9106–9111.



- Pal, S., Ghosh, T.K., Ghosh, R., Mondal, S., dan Ghosh, P., 2020, Recent advances in recognition, sensing and extraction of phosphates: 2015 onwards, *Coord. Chem. Rev.*, 405, 213128.
- Patey, M.D., Rijkenberg, M.J.A., Statham, P.J., Stinchcombe, M.C., Achterberg, E.P., dan Mowlem, M., 2008, Determination of nitrate and phosphate in seawater at nanomolar concentrations, *TrAC - Trends Anal. Chem.*, 27, 169–182.
- Petrucci, R.H., Herring, F.G., Madura, J.D., dan Bissonnette, C., 2010, General Chemistry: Principles and modern Applications, 10th ed. Pearson Canada Inc.
- Rahman, F.U., Bibi, M., Khan, E., Shah, A.B., Muhammad, M., Tahir, M.N., Shahzad, A., Ullah, F., Zahoor, M., Alamery, S., dan Batiha, G.E.S., 2021, Thiourea derivatives, simple in structure but efficient enzyme inhibitors and mercury sensors, *Molecules*, 26, 1–16.
- Rajbanshi, A., Wan, S., dan Custelcean, R., 2013, Dihydrogen phosphate clusters: Trapping $H_2PO_4^-$ tetramers and hexamers in urea-functionalized molecular crystals, *Cryst. Growth Des.*, 13, 2233–2237.
- Rao, T.N., 2018, Validation of Analytical Methods., In, Stauffer,M.T. (ed), *Calibration and Validation of Analytical Methods*. IntechOpen, Rijeka, hal. 131–141.
- Riyanto, 2014, Validasi & Verifikasi Metode Uji: Sesuai dengan ISO/IEC 17025 Laboratorium Pengujian dan Kalibrasi, Deepublish.
- Ruiz-Calero, V. dan Galceran, M.T., 2005, Ion chromatographic separations of phosphorus species: A review, *Talanta*, 66, 376–410.
- Şahin, Ö., Şahin, M., Koçak, N., dan Yilmaz, M., 2013, A new anthracene derivative of calix[4]arene as a uorescent chemosensor, *Turkish J. Chem.*, 37, 832–839.
- Saikia, E., Borpuzari, M.P., Chetia, B., dan Kar, R., 2016, Experimental and theoretical study of urea and thiourea based new colorimetric chemosensor for fluoride and acetate ions, *Spectrochim. Acta - Part A Mol. Biomol. Spectrosc.*, 152, 101–108.
- Shimizu, M., Aikawa, S., dan Fukushima, Y., 2023, Colorimetric sensing of $H_2PO_4^-$ using a Pb^{2+} complex of a pyridylazo dye in aqueous solution, *Color. Technol.*, 1–8.
- Song, X., Ma, Y., Ge, X., Zhou, H., Wang, G., Zhang, H., Tang, X., dan Zhang, Y., 2017, Europium-based infinite coordination polymer nanospheres as an effective fluorescence probe for phosphate sensing, *RSC Adv.*, 7, 8661–8669.
- Udhayakumari, D., 2018, Chromogenic and fluorogenic chemosensors for lethal cyanide ion. A comprehensive review of the year 2016, *Sensors Actuators, B Chem.*, 259, 1022–1057.



Upadhyay, L.S.B. dan Verma, N., 2015, Recent advances in phosphate biosensors., *Biotechnol. Lett.*, 37, 1335–1345.

Yahya, M., Yaman, M., dan Seferoglu, Z., 2022, Optical Chemosensors: Principles, Chemistry, Strategies, and Applications,. In, *Fluorescence Imaging - Recent Advances and Applications*.

Yang, L., Liu, Y.L., Liu, C.G., Fu, Y., dan Ye, F., 2021, A naked-eye visible colorimetric and ratiometric chemosensor based on Schiff base for fluoride anion detection, *J. Mol. Struct.*, 1236, 130343.

Zavala-Contreras, B., Santacruz-Ortega, H., Orozco-Valencia, A.U., Inoue, M., Ochoa Lara, K., dan Navarro, R.E., 2021, Optical Anion Receptors with Urea/Thiourea Subunits on a TentaGel Support, *ACS Omega*, 6, 9381–9390.